

COMPLETE LISTING OF ALL CLAIMS

1-14. (canceled)

15. (currently amended) The method of ~~claim 14~~ claim 27, wherein the mat-form insulating material further comprises

c) an amount, up to 30% by weight of ~~further~~ polyacrylonitrile fibers and/or and optionally

d) up to 20% by weight of additives.

16. (previously presented) The method of ~~claim 14~~ claim 27, wherein the polyalkylene terephthalate fiber is selected from polyethylene terephthalate fibers, polybutylene terephthalate fibers or mixtures thereof.

17. (canceled)

18. (canceled)

19. (currently amended) The method of ~~claim 17~~ claim 27, wherein the individual fiber linear density of the bicomponent fibers is within the range of from 1 to 20 dtex.

20. (currently amended) The method of ~~claim 14~~ claim 27, further comprising producing the mat-form insulating material by

mixing the melamine resin fiber and the polyalkylene terephthalate fiber to form a mixture,

laying down the mixture to form a mat, and
heating the mat.

21. (currently amended) The method of claim 20, ~~wherein the polyalkylene fiber~~

~~is a bicomponent fiber having a core/sheath construction comprising a polyester core and a copolyester sheath and wherein the temperature of the heating is higher than the melting temperature of the sheath and lower than the melting temperature of the core.~~

22. (previously presented) The method of claim 27, wherein the melting temperature of the core of the bicomponent fibers is within the range of from 230 to 280°C.

23. (previously presented) The method of claim 27, wherein the melting temperature of the sheath of the bicomponent fibers is within the range of from 100 to 130°C.

24. (currently amended) The method of ~~claim 17~~ claim 27, wherein the individual fiber linear density of the bicomponent fibers is within the range of from 2 to 15 dtex.

25. (currently amended) The method of ~~claim 12~~ claim 27, wherein the insulating material has a density of from 15 to 50 g l⁻¹.

26. (currently amended) A mat-form insulating material comprising:

i) from 5 to 95% by weight of melamine resin fibers, which are obtained by condensing a melamine-containing mixture with formaldehyde or formaldehyde-supplying compounds in a molar ratio of melamines to formaldehyde within the range of 1:1.15 to 1:4.5, said melamine-containing mixture comprising

- (A) from 90 to 99.9 mol% of a mixture comprising
 - (a) from 30 to 99.9 mol% of melamine and
 - (b) from 1.0 to 70 mol% of a substituted melamine of the formula I

where X^1 , X^2 and X^3 are each selected from $-\text{NH}_2$, $-\text{NHR}^1$ and $-\text{NR}^1\text{R}^2$, subject to the proviso that X^1 , X^2 and X^3 are not all $-\text{NH}_2$, and R^1 and R^2 are independently selected from hydroxy- $\text{C}_2\text{-C}_{20}$ -alkyl, hydroxy- $\text{C}_2\text{-C}_4$ -alkyl-(oxa- $\text{C}_2\text{-C}_4$ -alkyl) $_n$, where n is 1 to 5, and amino- $\text{C}_2\text{-C}_{12}$ -alkyl, or mixtures of melamines of formula I, and

(B) from 0.1 to 10 mol%, based on (A) and (B), of a compound selected from phenols which are unsubstituted or substituted by radicals selected from $\text{C}_1\text{-C}_9$ -alkyl and hydroxyl, $\text{C}_1\text{-C}_4$ -alkanes substituted by two or three phenol groups, di(hydroxyphenyl) sulfones or mixtures thereof,

- ii) from 5-95% by weight of polyalkylene terephthalate fibers,
- iii) an amount, up to 30% by weight, of polyacrylonitrile fibers, and optionally
- iii) up to 20% by weight of additive,

wherein the polyalkylene terephthalate fibers are selected from polyethylene terephthalate fibers, polybutylene terephthalate fibers or a mixture thereof,

wherein the polyalkylene terephthalate fibers are bicomponent fibers having a core/sheath construction comprising a polyester core and a copolyester sheath, and

wherein the melting temperature of the core of the bicomponent fibers is within the range from 200 to 300°C, and the melting temperature of the sheath is within the range of from 80 to 150°C.

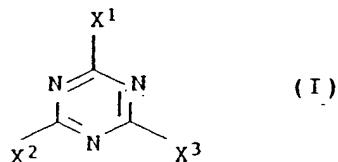
27. (previously presented) A method of thermally or acoustically insulating a building, said method comprising installing a mat-form insulating material in the

building,

wherein the insulating material comprises from 5 to 95 % by weight of at least one modified melamine resin fiber and from 5 to 95% by weight of a polyalkylene terephthalate fiber,

wherein said melamine fiber is obtained by condensing a melamine containing mixture with formaldehyde or a formaldehyde-supplying compound in a molar ratio of melamine to formaldehyde within the range from 1:1.15 to 1:4.5, said melamine mixture comprising

- (A) from 90 to 99.9 mol% of a mixture comprising
 - (a) from 30 to 99.9 mol% of melamine and
 - (b) from 1.0 to 70 mol% of a substituted melamine of the general formula I



where X^1 , X^2 and X^3 are each selected from $-\text{NH}_2$, $-\text{NHR}^1$ and $-\text{NR}^1\text{R}^2$, subject to the proviso that X^1 , X^2 and X^3 are not all $-\text{NH}_2$, and R^1 and R^2 are independently selected from hydroxy- $\text{C}_2\text{-C}_{20}$ -alkyl, hydroxy- $\text{C}_2\text{-C}_4$ -alkyl-(oxa- $\text{C}_2\text{-C}_4$ -alkyl) $_n$, where n is 1 to 5, and amino- $\text{C}_2\text{-C}_{12}$ -alkyl, or mixtures of melamines of formula I, and

- (B) from 0.1 to 10 mol%, based on (A) and (B), of a compound selected from phenols which are unsubstituted or substituted by radicals selected from $\text{C}_1\text{-C}_9$ -alkyl and hydroxyl, $\text{C}_1\text{-C}_4$ -alkanes substituted by two or three phenol groups,

di(hydroxyphenyl) sulfones or mixtures thereof,

wherein the insulating material has a density of from 10 to 150 g l⁻¹,

wherein the thickness of the mat-form insulating material is from 20 to 200 mm,

wherein the polyalkylene terephthalate fiber is selected from a polyethylene terephthalate fiber, a polybutylene terephthalate fiber or a mixture thereof,

wherein the polyalkylene terephthalate fiber is a bicomponent fiber having a core/sheath construction comprising a polyester core and a copolyester sheath, and

wherein the melting temperature of the core of the bicomponent fiber is within the range from 200 to 300°C, and the melting temperature of the sheath is within the range of from 80 to 150°C.

28. (currently amended) The method of ~~claim 12~~ claim 27, wherein the mat-form insulating material has a DIN 52 612 thermal conductivity of not more than 0.045 W m⁻¹ K⁻¹.

29. (currently amended) The method of ~~claim 12~~ claim 27, wherein the mat-form insulating material has a DIN 52 215-83 sound adsorption, converted from perpendicular to stationary sound incidence, of not less than 92%.